
NORTHUMBERLAND & DURHAM
MEDICAL SOCIETY.

DECEMBER 4, 1884.

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NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THE THIRD MONTHLY MEETING was held in the Library of the Newcastle-on-Tyne Infirmary, on Thursday, December 4th, 1884—the President (Dr. Fielden) in the chair.

The following gentlemen were elected members of the Society:—

J. L. Crisp, L.R.C.P. Edin., M.R.C.S. Eng., South Shields.
 Herbert Bramwell, M.B. C.M. Edin., Ingham Infirmary, South Shields.
 James Campbell, M.B. C.M. Edin., Blackhall Mill.
 M. A. Savage, M.B. C.M. Edin.

The following gentlemen were proposed for election:—

H. M. Hardcastle, M.B. C.M. Edin., New Bridge Street, Newcastle.
 James D. Farquharson, M.B. C.M. Edin., Westgate Road, Newcastle.

On the motion of Dr. ARNISON, seconded by Dr. PEART, it was carried unanimously that the January meeting of the Society be held on the 15th instead of the 8th of the month.

DISCUSSION ON THE PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG presented the following:—

Return of Admissions to the Newcastle Fever and Small-pox Hospitals during the month of November, 1884.

Disease.	Admissions.	Deaths.
Scarlet Fever.....	1	1
Typhus	1	1
Enteric Fever.....	1	0
Small-pox.....	1	0
Total.....	4	2

PATHOLOGICAL TRAY.

SQUIBB'S APPARATUS FOR THE ESTIMATION OF UREA.

Dr. HUME showed Squibb's apparatus for the estimation of urea, and said: In the beginning of this year I was in search of a simple and readily-applied method of determining the amount of urea in the urine, in order to carry out some observations on the influence

which obstructive urinary disease has on the secreting power of the kidneys. I mentioned my wish to Mr. Martin (of the firm of Brady and Martin), who kindly lent me the then just-issued January number of "Squibb's Ephemeris," and also constructed for me the very simple apparatus which, in that number of his Ephemeris, Dr. Squibb recommends for the estimation of urea. As this method of Dr. Squibb has now been mentioned in the English Medical Journals, and is of importance to those interested in such investigations, I have thought it might be of use to show the apparatus and describe the mode of its employment. The method of determining urea hitherto most in vogue, it will be known, is that of Russel and West. This depends on the decomposition of the urea by means of hypobromite of sodium, and the calculation of its amount by measurement of the resulting nitrogen. This process is accurate, but is troublesome in practice, chiefly because the hypobromite solution must be freshly made for each day. In Squibb's method the urea is broken up, not by hypobromite of sodium, but by hypochlorite of sodium; and he uses the U.S. Pharmacopœia solution of chlorinated soda to supply this reagent. This solution is a mixture of hypochlorite of sodium, chloride of sodium, and carbonate of sodium. When urea is acted upon by this solution it is broken up into nitrogen, carbonic anhydride, and water. In carrying out his investigations Squibb found that the chlorinated soda solution must be used largely in excess of what is required to decompose the urea, otherwise the carbonic anhydride passes over with the nitrogen and vitiates the result. When, however, the solution is in excess, the carbonic anhydride at once combines with the carbonate of sodium of the solution to form a bi-carbonate, and none passes over. Another point which came out in Dr. Squibb's investigations and enabled him to simplify his apparatus, was that the amount of nitrogen can be measured by the amount of water which it displaces, that is, that a cubic centimetre of nitrogen is exactly represented by a cubic centimetre of displaced water. The apparatus for carrying out this method of determination is exceedingly simple. It consists of two four-ounce medicine bottles, with a connecting arrangement of glass and india-rubber tubing passing through tightly-fitting india-rubber corks. Into one of these bottles is put the chlorinated soda solution (40 c.c. or $1\frac{1}{3}$ oz.), and into this is lowered a small phial of the shape of a minim glass containing 4 c.c. (or 64 minims) of the urine to be examined. The placing of the urine glass in the solution is so managed as not to allow the two to mix until the adjusting of the apparatus is completed. The other four-ounce bottle is filled with water, and its india-rubber cork is traversed by two glass tubes—one straight for connection with the solution bottle, the other bent and continued by india-rubber tubing to

conduct the displaced water into a third bottle, placed between the other two. Before the process is begun it is necessary that this tube for the carrying of the displaced water should be filled. In order to effect this the bottle is held on one side and water allowed to flow. The flow is then stopped by pressure of the finger on the open end of the straight glass tube, and a glass plug is temporarily placed in the end of the india-rubber tube to prevent further flow while the connection between the solution bottle and the bottle containing water is made. The plug is then withdrawn and the tube placed in the receiving bottle. When the solution bottle is now held on one side or agitated the urine and solution mix, and action at once begins. Bubbles of nitrogen are seen passing into the water bottle, and displaced water flows into the receiving bottle. When the process is completed, the displaced water is measured, its amount in cubic centimetres being the amount of nitrogen resulting from the breaking up of the urea of 4 c.c. of urine. Each c.c. of nitrogen represents .0027 gramme of urea, and upon this basis it is only matter of calculation to determine either the percentage of urea in the urine, or, when the daily quantity of urine is known, the actual amount of urea excreted in the twenty-four hours.

VESICAL CALCULI.

Dr. ARNISON showed a calculus removed by lateral lithotomy from a man 33 years of age, who had had symptoms of stone for 22 years. It measured $2\frac{1}{2}$ inches by $2\frac{1}{4}$, and weighed $3\frac{3}{4}$ ounces. Owing to its size it was necessary to enlarge the prostatic wound laterally. Urine did not pass by the urethra until three weeks after the operation, but the patient made a good recovery. Section of the stone showed a uric acid nucleus, and alternate layers of uric acid and oxalate of lime.

Dr. LUKE ARMSTRONG showed some calculi which he had removed from the male urethra and bladder, and remarked that the patient had gained control over the bladder a day or two after the operation.

Dr. MURPHY exhibited forty-seven vesical calculi and said: The first specimen which I show you is a phosphatic stone, with probably a nucleus of uric acid, which weighs 380 grains, which, with this small uric acid stone weighing 24 grains, were removed by me from a boy aged 14 years, at the Sunderland Infirmary. The boy had suffered from symptoms of stone since he was two years old. The operation was the usual lateral one, and the result was very satisfactory, as no unfavourable symptom ever appeared; and, as may be seen from his temperature chart, on only one occasion was his temperature increased by a single degree. I preferred lithotomy to crushing, owing to the size of the stones,

and to the smallness of the urethra, for the results of lithotomy in boys of that age are so good it is very doubtful if they are surpassed by lithotrity even in favourable cases.

II. The next specimen is the debris of a phosphatic stone, weighing 210 grains, which I removed by lithotrity at a single sitting from a man aged 32. I first injected four ounces of a solution of Condry's fluid and water, and having introduced Thompson's large fenestrated lithotrite, seized the stone and broke it. Then introducing Thompson's lithotrite with flat blades, I seized a large fragment at once, reduced it to powder, and, acting on Thompson's suggestion, which reminds him of fishing for perch, that there is a certain favourite area in every bladder in which to operate, a certain spot which is a favourite haunt, so to speak, for fragments of stone, I kept the lithotrite in the same place, and six times running caught fragments, which were speedily pulverized. Then having passed this silver tube, number sixteen English scale, which I may assure the members most healthy urethras will readily admit, I applied the aspirator and easily removed the whole of the debris. The result is most gratifying; there was but little pain and no shivering after the operation, and next morning he felt easier than he had been for months, and is now quite well. His temperature, as may be seen by his chart, never rose above normal.

III. The next specimen I show for its enormous size, weighing nine ounces and a quarter. I removed it some years ago (*post mortem*) from a man aged 22. He had symptoms of stone for ten years, but was not seen by me till after his death. The stone had worn its way into the rectum.

IV. In this bottle, sir, are contained forty-three uric acid calculi, removed from a gentleman, aged 55, by himself. Mr. X——, one day about five years ago, found his flow of urine suddenly stopped before his bladder was emptied. On consulting his medical adviser a silver catheter was passed and a stone immediately struck. This the surgeon was anxious to remove by lithotomy, but Mr. X—— declined, preferring to think the matter over and see if he could not devise some better means for its removal. Accordingly he spent several hours each day in several different positions, such as on his hands and knees, genu-pectoral position, &c.; but though by these positions he could get the stone to fall on the neck of the bladder, and as he thought to touch the entrance to the urethra, he completely failed to get it to enter that canal. So after several days he at length devised an aspirator in the following manner:—He fitted a bone pipe into a cork in a Florence flask, and into this pipe a number ten black catheter was made to screw; and having left some of the straw covering to hold the flask by when heated, he filled the flask with

boiling water, then emptied it, and rapidly screwed it on to the catheter previously introduced. He thus constructed an aspirator very like the original one invented by the late Sir Philip Crampton, which is figured in Sir Henry Thompson's lectures; but there is this important difference between the two—that in Crampton's aspirator there is a stop-cock which is closed till the catheter is attached and the vacuum complete, and is then suddenly opened, whereas in the one I show the vacuum occurs gradually, so that the urine is withdrawn slowly from the bladder. Having failed, after repeated and prolonged trials, he set about devising another form of aspirator, and soon constructed a simpler and more efficient one. The original instrument I now show you, and as you see it consists of a number ten black catheter, and a brass ear-syringe. His mode of operating was as follows: By getting on his hands and knees he could, from practice, get the stone to fall on the neck of the bladder, and getting it as near the entrance of the urethra as he could—or thought he could—he would gently introduce the catheter till he felt the stone; then gently withdrawing the instrument till it was a little outside the bladder, he would rapidly withdraw the piston, and, after a few attempts got the stone into the urethra, when he forced it forward by straining and endeavouring to make water, and finally by manipulating the urethra with his fingers, when the stone came within reach, and in this manner, at intervals during two years, he succeeded in removing, in all, forty-three calculi. He could feel them passing from his right kidney, never from the left; and as soon as he felt it had entered the bladder, would set about its removal, and generally two or three came in rapid succession, and then he would get complete relief for several weeks. At the end of two years he was induced to go on a restricted diet, in which alcohol and sugar were prohibited. To this diet he has confined himself with more or less regularity for the past five years, and during this time he has suffered no inconvenience from either kidney or bladder.

The PRESIDENT congratulated Drs. Arnison, Armstrong, and Murphy upon the success that attended their operations, and invited discussion upon the questions they had raised.

Mr. BERKELEY HILL (London) expressed himself as much interested in the cases he had just heard recorded, and advanced the opinion that when the neck of the bladder was left intact, the power to retain the urine was generally maintained.

SOLID OVARIAN TUMOUR.

Mr. PAGE said: I. Last session, sir, I showed at a meeting of this Society a large solid tumour of the ovary, which I had the

satisfaction of removing successfully from a patient who was admitted into this institution under the care of Dr. Oliver. Here is another solid tumour of the ovary removed, I am sorry to say with a fatal result, from a young unmarried woman sent into the Infirmary, for operation, by Dr. Mantle of Stanley. The tumour is not large, but the operation was a most formidable one. Every portion of the surface of the growth was firmly adherent to surrounding structures. It was necessary to make a long incision, and much time was expended in carefully enucleating the tumour. Upon showing my former specimen, I called attention to Mr. Lawson Tait's statement as to the rarity of solid tumours of the ovary. It is somewhat singular that another example of the disease should so soon have come under the observation of our Society.

FIBROUS TUMOUR REMOVED FROM THE LABIUM.

II. This is a solid tumour removed from the left labium of a woman aged about 45 years. It consists mostly of dense fibrous material, but in the centre of the mass is imbedded what appears to be a large nævus. The growth of the tumour was slow, and it took many years to reach its present size—somewhat larger than a duck's egg. Its removal was a very simple matter; there was but little bleeding, and the wound healed readily.

PIECE OF WOOD REMOVED FROM ORBIT.

III. Some years, now I am sorry to say a good many years ago, a boy about 12 years of age was brought to the Newcastle Infirmary with a wound of his upper eyelid, caused by a companion thrusting the end of an ordinary gig whip, from which the thong part had been broken off, into his face. Before examination a splinter of wood could be seen just within the wound. A cut was made, and out of the orbit this large piece of the whip end was extracted. No injury was done to the brain nor to the eye, and in a short time the lad was discharged but little the worse. The piece of wood is $2\frac{1}{2}$ inches long, and covered with cotton used for binding the quill around the seat of junction of the thong with the whip shaft.

Dr. MURPHY said: Solid tumours of the ovary are rare, Doran having seen but 20 operations for their removal out of 700 ovariotomies, and all these proved to be sarcomatous or cancerous. In the College of Surgeons' Museum, however, there is a large myoma weighing over 15 pounds, which was successfully removed by Sir Spencer Wells; and as Doran suggests, "the ovary contains elements in its framework alone, putting aside the follicles and blood vessels, whence fibroma, sarcoma, myoma, or cancer may develop," in addition to which adenoma, papilloma, and tuber-

culosis are occasionally formed. In carcinoma both ovaries are generally affected, a very fine example of which I showed to the Society some years ago, and Dr. Heath also exhibited two carcinomatous tumours before that. Now fibroma of the ovary is of very rare occurrence, and generally one ovary only is affected, or if the other is also the seat of the disease, one tumour is very much larger than the other. Kiwisch met with two cases; Klob, one; Peaslee, two; and Van Buren, two. They do not often exceed the size of a goose's egg, and are very dense, firm, and lobular, and no elements of the ovisacs or their cicatrices are visible. They differ from uterine fibroids in the predominance of firm connective tissue and the almost complete absence of muscular fibre, and they cannot be enucleated. The very interesting specimen which Mr. Page has shown would appear to be a fibro-cystoma, and of these the largest on record are Simpson's case, where the tumour weighed 56 pounds, and Spiegelberg's, 80 pounds. In solid tumours of the ovary the pedicle is formed from the short and broad mesovarium which penetrates into the hylus, and not from the broad ligament itself, as in the case of cystoma, which accounts for the character of the pedicle in Mr. Page's case.

CEREBRAL TUMOUR AND BRIGHT'S DISEASE.

Dr. DRUMMOND showed the brain and kidneys from a case of cerebral tumour, complicated by chronic parenchymatous nephritis, and said: These specimens were removed from the body of a labourer, aged 42, who died in the Infirmary a few days previously. The patient first came under observation in September, 1883, about fifteen months before, when he was admitted complaining of symptoms very suggestive of uræmic poisoning. He was exceedingly stupid and heavy, his memory was almost gone, and he complained of severe headache and marked prostration. The urine, which was much diminished in quantity, was highly albuminous. A short time after his admission the headache became greatly intensified, and delirium was added to his other nervous symptoms, which, from the obvious kidney mischief and total absence of all localizing brain symptoms, were believed to have an uræmic origin. His delirium was occasionally of the most boisterous character, and it was, at times, with the greatest difficulty that he was kept in bed. By degrees the flow of urine increased, whilst *pari passu* the headache and delirium subsided, and he left hospital very much improved, to return again, however, on the 6th of last month (November). He was then in much the same condition as on the occasion of his first presenting himself, only much weaker and thinner. There was no dropsy; the urine was very albuminous, and without casts, but it was impossible to measure the quantity passed in the 24 hours, as some was voided

in bed. He had no paralysis. There was no optic neuritis. The headache was severe, and there was marked mental hebitude, which gradually deepened towards death. As already remarked, the case proved at the *postmortem* to be a cerebral new-growth, complicated by Bright's disease. The kidneys were excellent examples of the large pale kidney, in its chronic form, and weighed between 13 and 14 ounces each. There was no evidence of waxy degeneration. The brain was very soft and œdematous, but the most interesting pathological feature was found to be a large gummatous tumour, the size of a fig, which occupied the front of the right frontal lobe, being incorporated with the dura mater on the one hand and with the brain substance on the other. On section this tumour was seen to be "cheesy," and of a yellowish colour, with greyish-purple patches. The points of interest in the case were: (1) the difficulty attending the differential diagnosis between cerebral tumour and chronic uræmia; (2) the fact that there was no optic neuritis; and (3) the absence of dropsy and tube casts from a case of chronic parenchymatous nephritis.

HYDATIDS OF THE LIVER.

Dr. DRUMMOND next showed the liver and kidneys, with the pancreas and neighbouring portion of the duodenum, removed from the body of a woman, aged 45, who died deeply jaundiced and much emaciated, about ten days before. She had been under the care of a friend, who had given him permission to bring the specimens before the Society. No history could be procured, and little was known about the case beyond the statement that the patient had been jaundiced for five months before her death, and that she had complained principally of pain in the region of the liver. At the *postmortem* it was seen that the liver was slightly reduced in size. The capsule was thickened, and evidences of perihepatitis were present. On the upper surface a cyst about the size of a small walnut, with thick walls and cheesy pultaceous contents, was observed to project. Another cyst, about the size of a large orange, bulged from the under surface; this also contained a peculiar putty-like mass, and had thick yellowish grey walls. Under the microscope the contents of these cysts were seen to consist of cholesterin, both in the rhombic tablet and amorphous form; in addition there were a large number of altered cells, shreds of membrane (probably from the walls), and hooklets, some of which could be seen under the microscope placed on the table. The gall bladder was distended with thin dark bile, and projected like a large pear from the under surface of the liver. On tracing down the bile ducts it was found that a cyst the size of a Tangarine orange occupied the connective tissue between the head of the pancreas and the descending portion of the duodenum, causing a

distinct swelling in this position, and completely occluding the *ductus communis choledochus*. This cyst had thinner walls than those found in the liver, and was observed to contain almost clear fluid, in which were floating some caseous flakes and soft white bodies. The microscope revealed shreds of hydated membrane, and a few hooklets with some cholesterine and other *debris*. The kidneys showed signs of commencing granular disease.

EXHIBITION OF PATIENTS.

Mr. PAGE introduced a young woman whose eye had been injured by three nails which entered the orbit. [See Mr. Page's paper on page 67.]

CASE OF SEVERE INJURY TO PLEURA AND PERICARDIUM.

Dr. ARNISON showed a boy, aged 11, who a few months ago was gored by an ox, and sustained compound fracture of three or four ribs, and laceration of the pleura and pericardium, exposing the heart, which was seen naked in the wound. Under Listerian dressing the wound was not disturbed for 10 days, when only a superficial wound remained. A considerable interval remained between the ribs, in which the apex beat was distinctly seen.

CASE OF DOUBLE FACIAL PARALYSIS.

Dr. DRUMMOND showed a striking case of double facial paralysis, and stated that the patient, a labourer, aged 31, had been admitted into the Newcastle Infirmary for chronic Bright's disease on the 6th November last. According to the history, the patient was a heavy drinker, and had been ill for three years. On admission there was a moderate degree of general dropsy; the urine contained a large quantity of albumen and casts, and had a specific gravity of 1007. On the 12th November, six days after his admission, it was observed that the left side of the face was partially paralysed. In three days the paralysis was complete, and in five days more the right side had also become affected. The usual appearances of double paralysis of the facial muscles were well shown.

“NOTES ON A SERIES OF CASES OF STONE IN THE BLADDER”—WITH SPECIMENS.

By G. H. HUME, M.D., Surgeon to the Newcastle Infirmary.

MR. PRESIDENT AND GENTLEMEN,

A series of fifteen cases of stone in the bladder operated on without mischance is neither remarkable nor unusual as a surgical success, and would not deserve on that ground alone to be brought under your notice. But amongst those cases, which are all that I have operated upon to this date, there is perhaps an unusual number presenting features of interest. I shall first state in outline the general characteristics of the series, and then briefly mention those cases which offer special points of interest. The cases of the patients, who were all males, range from 2 to 61; 7 were under the age of 13, 8 between 21 and 61. Eleven of the cases were operated upon by lithotomy and four by lithotripsy, two of these four being lithotrities at one sitting. Of the calculi removed by lithotomy, five were uric acid, four oxalates, and one phosphatic. Of the calculi which were crushed, two were mixed uric acid and phosphates, and two were phosphatic alone. The first case of special interest (*Case 3*), was that of a boy 13 years of age, from whom a rather large uric acid calculus was removed in 1870. His case was an instance of the eccentric origin of epilepsy. He had symptoms of stone from childhood, and in consequence of his evidently intense sufferings he was in a highly excited, uncontrollable state. For some time previous to the operation he had been taking fits which corresponded in their character to true epilepsy. After the operation he had two of these fits—on the second and third days—and then they permanently ceased. *Case 4* was that of a child, aged five, admitted into the Children's Hospital, from the neighbourhood of Barnard Castle, in October, 1873. He was in the hospital for a week previous to operation. On the morning after the operation he was found to be covered with a scarlet rash, and was at once isolated. There was redness of the fauces but no further affection of the throat, and the rash (which had faded by the end of the third day) was not followed by perceptible desquamation. There had been no case of scarlet fever in the hospital, into which children suffering from infectious diseases are not received; nor, fortunately, did any follow to aid in determining whether the rash was that of scarlatina or no. One link in the evidence was neglected to be filled in at the time: it was not ascertained whether the child had been exposed to infection before leaving home. The oversight was due, I think, to the absence of all doubt in my mind that the eruption was that of mild scarlatina. The case occurred

before the publication of Sir James Paget's clinical lectures and essays, by one of which interest was reawakened in these instances of doubtful rash following operations in childhood. The diagnosis in such cases rests between scarlatina and septicæmia (or surgical erythema, as it has been called by Dr. Cheadle), that is between a communicable and a non-communicable disease. It is, therefore, an important question clinically, and has been a good deal discussed. The case I have narrated is a typical example of these doubtful eruptions, but the presumption appears to me strong that the attack in all, or nearly all, is really scarlet fever. Probably the suggestions offered by Sir James Paget, in explanation of their frequent occurrence, are correct. It seems probable, indeed certain, that surgical interference in children markedly increases their susceptibility to the scarlet fever poison, shortens the period of incubation, and may develop germs of the disease which have been lying dormant. It is at least prudent in all such cases to act on the assumption that the rash is that of scarlet fever, and to isolate the patient. *Case 10* is interesting as an example of recovery from wound of the bladder, and subsequent formation of a calculus on foreign matter left in the viscus. The patient, a young man working in a shipbuilding yard in Stockton, fell from a height upon an upright iron spike. The spike entered the rectum and passed through the wall of the bowel into the bladder. It was known at the time that a piece of cloth torn from the trousers had been carried into the wound, and part of it was extracted. In course of time the wound healed, but, after a lapse of some months, symptoms of stone in the bladder developed, and he came under my care. The debris of the stone, which was crushed, show very plainly its formation in shreds of cloth. At the time of the operation doubt was expressed as to whether, in this case, the right method of dealing with the stone had been chosen. It is clear that in crushing a stone, formed in the way this had been, there was great risk of leaving in the bladder portions either of the calculous matter or of the foreign substance on which it had been deposited. I was, therefore, for a time apprehensive of an early relapse. But the patient reported himself as quite free from symptoms six months after the operation. And as now at the end of more than three years nothing further has been heard of him, I am fain to believe that the bladder was effectually emptied of all foreign contents. The patient in *Case 8* was the subject of an advanced stage of locomotor ataxy, and was in the Newcastle Infirmary under the care of Dr. Oliver. The stone had developed as a consequence of the incomplete evacuation and cystitis from which ataxic patients so commonly suffer. Lithotomy was performed, and the patient, who was 54 years of age, recovered perfectly from the operation. Here, I am free to own, the right

operation was not chosen. In another similar case I should practice evacuating lithotrity. In the two cases of lithotrity by Biglow's method, which are included in my series, the stone was of moderate size and phosphatic. The first case (*Case 11*) was that of a medical assistant from the country, who had some amount of cystitis with alkaline urine. He recovered well, and was able to return home ten days after the operation. He has continued free from symptoms during the eighteen months that have elapsed, save that he has on one or two occasions (one of these being within the last few months) passed a small fragment of phosphatic matter. The early part of the history of the second case (*Case 13*) has been already reported to the Society. The patient was a miner, aged 61, upon whom an experienced and successful lithotomist, Dr. Anderson, of Seaton Delaval, had operated in the early part of this year. Dr. Anderson at that time brought his case before the Society, and showed an elongated prostatic tumour which he had removed previous to the extraction of the stone. It seems that the patient made a tedious and imperfect recovery. There had been scarcely an interval free from suffering; and when he came to me in August last, he was hardly able to move from the severity of the pain. There was aggravated cystitis with, of course, constant calls to urinate. Ten days' rest in bed after his admission into the Infirmary improved his condition, and the stone was then crushed. The operation lasted a little over an hour. From the day of the operation the man's sufferings were almost quite relieved, and he returned home in a fortnight free from pain, and able to hold his water for two or three hours. He was able completely to empty the bladder. He has, within the last week or two, come to show himself, and to report that he continues free from symptoms.

“HISTORY OF A CURIOUS INJURY TO THE EYE AND ITS RESULTS.”

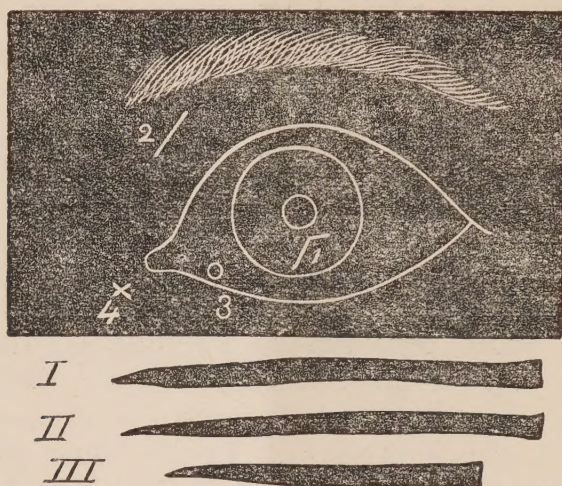
By FREDERICK PAGE, Surgeon to the Newcastle-upon-Tyne Infirmary.

MR. PRESIDENT AND GENTLEMEN,

Three months ago a young woman applied for treatment at the Newcastle-upon-Tyne Infirmary, suffering from a lacerated wound of the left cornea, the result, she said, of having, a few hours previously, received a blow from an iron pot. The wound was about a quarter of an inch in length, and the iris was protruding (*vide* woodcut 1). She was advised to remain in the Infirmary, but refused to do so. The following day she was seen by an eminent oculist, at the Eye Infirmary, and a very unfavourable view was then taken of her condition, and indeed nothing could have been much more unpromising. The probability of saving an eye with a roughly-made tear in the cornea, through which a large piece of iris was protruding, seemed certainly extremely remote. The next—that is to say the third day after the accident—she became an in-door patient under my care. When I saw her there was some considerable swelling of the lids, and a prolapsus of the iris as large as a large shot. Strong solution of atropine was put into the eye, and on two occasions the prolapsus was touched with nitrate of silver. In the course of a few weeks the wound in the cornea was completely healed, and at her earnest request she was allowed to go home, still with some slight swelling of the upper lid. Six weeks after the accident she presented herself again, complaining that she had some stiffness of the upper lid, and difficulty and pain on opening the eye. Placing my finger on the left upper lid (woodcut 2) I could feel something under the skin below the eyebrow, and told her there was some foreign body lodged there. No wound could by the most careful search be found in the skin, and the eyelid could not be everted. With considerable persuasion the patient submitted to be placed under chloroform. I cut down upon the point of a foreign body, and with some difficulty, and to my great surprise, extracted from the orbit this nail (woodcut I), which is more than one inch and a-half in length. The wound healed readily, but in a few days the patient returned to me saying she thought there was still something in her eye. To my intense astonishment, precisely in the same situation I felt an exactly similar foreign body, and told her I thought there was another nail—but this was too much; she would not believe it. However, I again put her under chloroform, and, with much difficulty, extracted this nail, evidently the brother of the one previously removed (woodcut II). Everting the upper lid, which could be done easily enough after

the extraction of the nails, a wound was found of the conjunctiva of the upper lid, through which the foreign bodies had passed into the orbit.

Eight weeks after the accident the patient came to me complaining of pain in the lower lid, near the inner angle of the eye. There was some purulent discharge at the inner canthus. Putting her again under chloroform, and fully expanding the lids, with a speculum an opening in the conjunctiva of the lower lid, near the inner angle of the eye, could be seen (woodcut 4); and at the bottom of this small pit or opening a black spec—the end of this nail—was visible (woodcut III).



1. Tear in cornea through which iris protruded.
2. Cut in skin of upper eyelid, through which I and II nails were extracted from orbit.
3. Cicatrix in sclerotic where I think nail III passed out of eyeball into orbit, having entered globe at 1.
4. Opening in palpebral conjunctiva at inner angle of lower eyelid from which nail III was abstracted from orbit.

In the sclerotic at the point marked 3 on the diagram was a cicatrix, the result of a recently-healed wound. It seemed to me possible that nail III could have entered the eyeball at 1, passed out at 3, burying itself in the orbit at 4x.

"The things themselves are neither rich nor rare, the only wonder is however they got there." On a more careful enquiry into the history of the case, it was ascertained the patient had been struck on the head by an iron pot falling off a shelf. She fell down insensible. Upon another shelf, which in falling she had to pass, was a box of nails which it seems she must have struck, disturbing the contents, and thus receiving the extraordinary injuries I have described.

The case seems to me a very curious one. The young woman has, as we see (patient shown) a good useful eye, and beyond the cicatrice in the cornea, and in the eye-lid from my cuts, shows no

mark of the strange accident she has sustained. When one thinks of the dangers she has escaped—immediate destruction of the eyeball, traumatic cataract, occluded pupil, &c., to say nothing of injury to the brain or optic nerve, one is tempted to say—truly nothing is impossible.

Dr. ANDERSON said: The remarkable case brought before the Society by Dr. Page reminded him of a case he had somewhat similar, in which an acute abscess formed at the outer angle of the left eye. and which on opening discharged among its contents three pieces of grass straw. No external wound existed prior to the formation of the abscess; but the boy's mother stated that he was in the habit of chewing straw, and no doubt they had been introduced by the mouth, and, travelling upwards by the muscular movements, had caused the abscess, which was still discharging.



